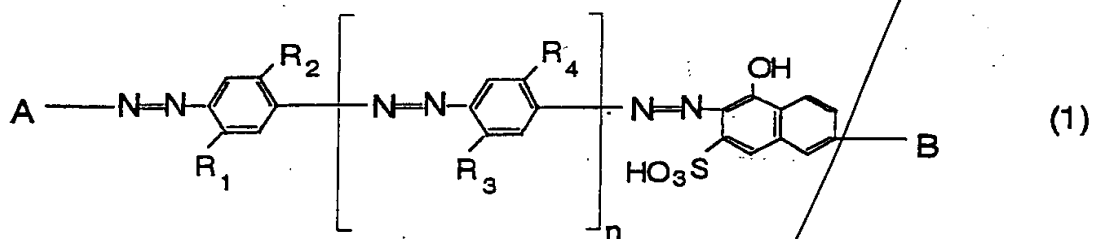
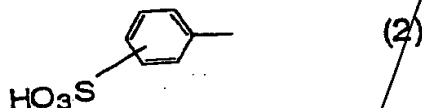


Claims:

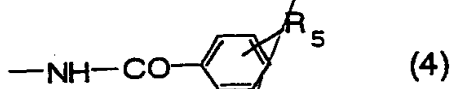
1. A polyvinyl alcohol type polarizing film containing, in a substrate for the polarizing film, a water soluble dye represented by the following formula (1) in the form of a free acid:



[where A represents the following formula (2)]



B represents the following formula (4) when A represents the formula (2);

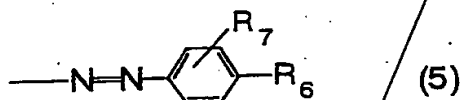


and n is 1, R<sub>5</sub> in the formula (4) represents an amino group or a hydroxyl group, or

A represents the following formula (3)

$$\text{X}-\text{C}_6\text{H}_3(\text{SO}_3\text{H})-\text{CH}=\text{CH}-\text{C}_6\text{H}_4(\text{HO}_3\text{S})-\text{C}_6\text{H}_4-\text{X} \quad (3)$$

{where X represents a nitro group or an amino group}, B represents the following formula (5) when A represents the formula (3):



and n is 0 or 1 {where R<sub>6</sub> represents a hydrogen atom, hydroxyl group, substituted or unsubstituted amino group, methyl group, ethyl group, methoxy group or ethoxy group, R<sub>7</sub> represents a hydrogen atom, hydroxyl group, substituted or unsubstituted amino group, methyl group, ethyl group, methoxy group or ethoxy group in the formula (5)}, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> each independently represents a hydrogen atom, methyl group, ethyl group, methoxy group, ethoxy group and acetyl amino group, on the proviso of excluding the case where all of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are methyl group or methoxy group and the case where R<sub>1</sub> and R<sub>3</sub> are methyl group and R<sub>2</sub> and R<sub>4</sub> are methoxy group when n is 1, A represents the formula (2) and B represents the formula (4)] 12  
or a copper complex/salt dye thereof.

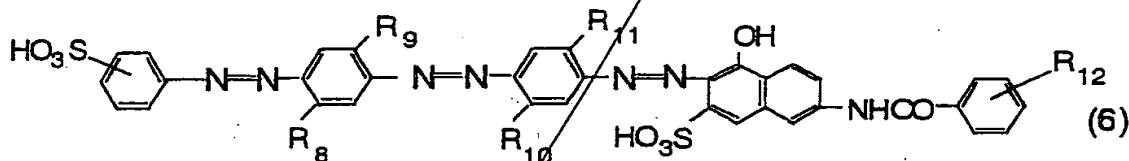
2. A polyvinyl alcohol type polarizing film as defined in claim 1, containing at least one of the water soluble dye

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A1

represented by the formula (1) or the copper complex salt thereof and at least one of organic dyes other than above.

3. A polyvinyl alcohol type polarizing plate having a protective film on the surface of the polyvinyl alcohol type polarizing film as defined in any one of claim 1 or 2. 112

4. Apolarizing film for polyvinyl alcohol for a green channel used for a liquid crystal projector containing in a substrate for a polarizing film, a water soluble dye represented by the following formula (6): 112



where ( $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  each represents a hydrogen atom, methyl group, ethyl group, methoxy group, ethoxy group and acetyl amino group. ( $R_{12}$  represents a hydrogen atom, amino group or hydroxyl group) in a free acid form and having a maximum absorption wavelength ( $\lambda_{max}$ ) of 520 nm or more and less than 580 nm.

5. Apolarizing film for polyvinyl alcohol for a green channel used for a liquid crystal projector containing at least one of water soluble dyes represented by the formula (6) as defined in claim 4 and at least one of organic dyes other than described

above.

6. A polarizing plate for polyvinyl alcohol for a green channel used for a liquid crystal projector as defined in claim 4 or 5 wherein the average light transmittance for the crossed state at 630 nm to 780 nm is 60% or more. 112

7. A polarizing plate for polyvinyl alcohol for a green channel used for a liquid crystal projector having a protective film on the surface of a polyvinyl alcohol type polarizing film as defined in claim 4.

8. A color liquid crystal projector having the polarizing plate as defined in claim 7 in a green channel portion. 112,

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